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MCDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

HARBECK, TIMOTHY M

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3628

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Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Claim Objections

Claim 28 is objected to because of the following informalities: Claim 28 is an apparatus claim however the last claimed feature appears to introduce a method step. It is unclear how this step functions as a piece of the apparatus. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 27 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not provide support for the invention as now claimed i.e., a rules engine comprising a storage medium having at least one rule relating to identification of compliance violations of **regulatory requirements** related to a transaction. More specifically the specification as originally filed does disclose a rules engine comprising a storage medium having at least one rule relating to identification of compliance violations associated with said rule, but not specifically regulatory requirements associated with the transaction as implied in claim 27.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-11, 15-17, 19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by DeTore et al (US Pat No 5,732,397).

Re Claim 1: DeTore discloses an automated decision making arrangement comprising

- An input circuit for receiving at least one transaction (Fig 1, Ref 16 and Fig 3 Ref 50)
- A storage medium having rules stored thereon (see Ref 24 and Column 3 lines 26-35), at least one rule having a plurality of outcomes appropriate to a transaction capable of being selected by a user (Column 2, lines 30-43).

Re Claim 4: DeTore further discloses the step in which one outcome of the plurality of outcomes includes forwarding the at least one transaction to a user for approval (Column 8, lines 9-21). In the DeTore disclosure, all relevant information and automated recommendations are forwarded to a user who can then either approve or overrule the system.

Re Claim 5: DeTore further disclose the step in which one outcome of said plurality of outcomes includes automatic approval of an order submitted with said transaction (Column 5, line 59- Column 6 line 9).

Re Claim 6: DeTore discloses an automated decision making arrangement comprising

- An input circuit for receiving at least one transaction (Fig 1, Ref 16 and Fig 3 Ref 50)
- A storage medium having rules stored thereon (see Ref 24 and Column 3 lines 26-35), at least one rule having a scope of application which can be selectively set by a user (Column 2, lines 36-42; initial comparison; subsequent comparison based on additional data)

Re Claim 7: DeTore discloses the claimed method supra and further discloses the step in which the scope of the application is capable of being set to the account level (Column 3, lines 26-29)

Re Claim 8: DeTore discloses the claimed method supra and further discloses the step in which the scope of the application is capable of being set to the registered representative level (Column 5, lines 13-27). The DeTore disclosure references a “decision manager” which serves the same capacity as the registered representative in applicants disclosure.

Re Claims 9-11: DeTore disclose the claimed method 6 as stated previously. DeTore has also shown, via rejections to claims 7 and 8 above, that the scope of the application is capable of being set to different levels in a hierarchal system. It follows

then that if the scope of the application is capable of being set to the account level and the registered representative level, it would be capable of being set to the office, firm or global level, or any other level deemed appropriate in a hierarchal order.

Re Claim 15: DeTore further discloses a method for processing a transaction comprising the step of checking the transaction by applying rules in order of increasing scope (See discussion of Fig 3, Column 5, lines 51-Column 7, line 5). As shown in Figure 3, the rules of the transaction are first applied at the account level (Ref 52), and later applied, according to increasing scope, in a second decision making process (Ref 61) that contains additional data not contained within the first operator. Furthermore, the decision can be referred to a human decision maker (account manager, Ref 64), indicating a variety of levels of scope.

Re Claim 16: DeTore discloses the claimed method supra and further discloses the step in which rules are applied by first applying rules at the account level, then rules at the registered representative level (See Discussion Re Claim 15 and Fig 3). The reference does not explicitly disclose then applying the rules at the office level, then rules at the firm level and then rules at the global level, however as discussed previously with regards to Claims 9-11, in the DeTore embodiment the scope of application of said rules is capable of being set to different levels in a hierarchal system. DeTore shows in Figure 3 that the rules can be applied in order of increasing scope and therefore it follows that the rules, after the registered representative level, be applied at the office level, then rules at the firm level and then rules at the global level, and then rules at any other potential higher level deemed appropriate in a hierarchal order.

Re Claim 17: DeTore discloses the claimed method supra however the reference does not explicitly disclose the step in which the rules include compliance rules. However, it was well known in the art at the time of invention that any company that does not adhere to compliance rules associated with the Securities and Exchange Commission and exchange regulations could be subject to disciplinary action such as being barred from trading. It would have been obvious to someone skilled in the ordinary art at the time of invention to include compliance rules in the rules engine to ensure that the system can legally operate in an organized stock exchange.

Re Claim 19: DeTore discloses an automated decision making arrangement comprising:

- A client process for generating and sending a transaction containing an order for execution (Column 1, lines 52-66 'input means'; Figure 3, Ref 50)
- A rules engine for receiving said transaction from said client process and applying at least one user configurable rules to said transaction (See Figure 3, Refs 52, 54; Column 3, lines 26-35)
- At least one execution process for receiving said order from said rules engine and for executing the order, when the application of rules by said rules engine results in an approved outcome (Column 5, lines 62-Column 6, lines 9; Figure 3 Refs 54 and 56)
- Wherein at least one user configurable rule comprises at least one rule with user configurable outcomes (Column 2, lines 30-36).

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Re Claim 22: DeTore discloses an automated decision making arrangement comprising:

- A client process for generating and sending a transaction containing an order for execution (Column 1, lines 52-66 'input means'; Figure 3, Ref 50)
- A rules engine for receiving said transaction from said client process and applying at least one user configurable rules to said transaction (See Figure 3, Refs 52, 54; Column 3, lines 26-35)
- At least one execution process for receiving said order from said rules engine and for executing the order, when the application of rules by said rules engine results in an approved outcome (Column 5, lines 62-Column 6, lines 9; Figure 3 Refs 54 and 56)
- Wherein at least one user configurable rule comprises at least one rule with user configurable scope of application (Column 2, lines 36-42; initial comparison; subsequent comparison based on additional data).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 12, 13, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeTore in view of Toy (US Pat No 4,554,418).

Re Claim 2: DeTore discloses the claimed method 1 as previously stated, however DeTore does not explicitly disclose the step in which one outcome of said plurality of outcomes includes providing warning information to a user. Toy discloses an information monitoring and notification method and apparatus wherein "it becomes an object of the present invention to provide an economical system for monitoring financial market data and for informing investors upon occurrence of particular events or trends of interest (Column 2, lines 35-52)." In this manner, a user of the Toy system could receive a warning notice if, for example, the market value of a stock owned by the user drops below a pre determined threshold. It would have been obvious to someone skilled in the ordinary art at the time of invention to include the teachings of Toy to the decision-making arrangement of DeTore so that a user of the system could receive a warning notice if, for example, the market value of a stock owned by the user drops below a pre determined threshold. This would be valuable to the user because they could then take appropriate action, whether it be to sell the stock or reevaluate his position.

Re Claim 12: DeTore discloses the claimed method 6 as previously stated, but does not explicitly disclose the step wherein a rule is accompanied by a message to be sent when a rule is violated. Toy discloses an information monitoring and notification method and apparatus wherein "it becomes an object of the present invention to provide an economical system for monitoring financial market data and for informing investors upon occurrence of particular events or trends of interest (Column 2, lines 35-52)." Toy continues, "Upon occurrence of any of these specified conditions, the method and

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apparatus of the present invention automatically initiates a contact sequence for notifying the user of such occurrence (Column 5, lines 18-21).” In this case, the “specified conditions,” would be the violation of a pre-determined rule. It would have been obvious to someone skilled in the ordinary art at the time of invention to include the teachings of Toy to the method of DeTore so that a user of the system could be informed when a rule is violated and take appropriate action as soon as possible.

Re Claim 13: DeTore in view of Toy discloses the claimed method supra and Toy further discloses the step in which the text of said message can be changed by an user for a selected level (Column 7, lines 22-28).

Re Claim 20: DeTore discloses the claimed method supra and further discloses the step in which the user configurable outcomes are selected from a group comprising:

- Forwarding the order to a process for execution (Fig 3, Ref 50,52,54)
- Forwarding the order to a user for approval (Fig 3, Ref 64, Column 5 lines 13-18)
- Rejecting the order (Column 6, lines 41-44)

DeTore does not explicitly disclose the step of providing a warning to a user about the order, however Toy discloses such a step (Column 2, lines 35-52). It would have been obvious to someone skilled in the ordinary art at the time of invention to include the teachings of Toy to the decision-making arrangement of DeTore so that a user of the system could, for example, receive a warning that an order they have placed does not meet the pre defined criteria that the user has established as necessary for the

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transaction. If this step were not in place a user could inadvertently enter into a transaction to which they would normally object.

Re Claim 21: DeTore in view of Toy discloses the claimed method supra and DeTore further discloses the step in which forwarding the order to a process for execution includes forwarding the order to a selectable of a process for executing a stock or option trades, a process for executing mutual fund trades, and a process for executing trades in fixed income instruments (Column 3, lines 48-50).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeTore in view of Kalmus et al (hereinafter Kalmus US Pat No. 4,674,044).

Re Claim 3: DeTore discloses the claimed method supra except for the explicit disclosure wherein one outcome of said plurality of outcomes includes prohibiting execution of an order by said transaction. Kalmus discloses an automated securities trading system wherein "the processor first determines whether or not each received transaction can be executed, i.e., qualifies the order. There are various reasons why an order will not be executed by the market maker (Column 5, lines 6-21)." It would have been obvious to someone skilled in the ordinary art at the time of invention to include the teachings of Kalmus to the invention of DeTore so that certain orders that do not meet the pre determined rules are not executed. If the orders were be allowed to be placed, in violation of the rules it would render the decision making tool useless.

Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeTore in view of Fernholz (US Pat No 5,819,238).

Re Claim 24: DeTore discloses an apparatus comprising:

- A client for generating and sending a transaction containing a request (Figure 3, Ref 50, 52)
- A rules engine for receiving said transaction from said client process and applying at least one user configurable rule to said transaction (Figure 3, Ref 52, 54; Column 3 lines 26-35) wherein the at least one user configurable rule includes at least one rule with user configurable scope of application, or at least one rule with a user configurable outcome (Column 3, lines 26-35; the database contains rules that are installation specific to a user, a rule is an if-then statement, and by controlling the “then” portion of this statement, the outcome is user configurable).

DeTore does not explicitly disclose the steps wherein the sending of a transaction contains a request to transfer assets between accounts or at least one execution process for receiving said request from said rules engine and for transferring assets as requested, when application of rules by said rules engine results in an approved outcome. Fernholz discloses an apparatus for automatically modifying a financial portfolio through dynamic re-weighting based on a non-constant function of current capitalization weights that contain these steps. Fernholz discloses a “computer then issues digital trading instructions, each of which represents a trade of a

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corresponding security to e.g., an electronic trading network such that current assets held in the portfolio are to be distributed, upon execution of the instructions" (Column 4, line 67- Column 5 line 4). Essentially an input request is made concerning the balance of assets among a portfolio and in response to these requests; assets are transferred amongst various accounts to meet certain distribution requirements. It would have been obvious to someone skilled in the ordinary art at the time of invention to include the request and execution for transferring of assets as disclosed by Fernholz to the decision making tool of DeTore so that a user can not only have a decision made regarding their financial requests, but also have the decision executed. IF someone were to use a decision making tool, it is probable that they would use the recommendations of the system. It would thus streamline the process if the same system could upon approval execute the actions as well.

Re Claim 25: DeTore in view of Fernholz discloses the claimed method supra and DeTore further discloses the step wherein at least one user configurable rule comprises at least one rule with user configurable scope of application (Column 2, lines 36-42; initial comparison; subsequent comparison based on additional data)

Re Claim 26: DeTore in view of Fernholz discloses the claimed method supra and DeTore further discloses the step wherein at least one user configurable rule comprises at least one rule with user configurable parameters (Column 3, lines 26-35).

Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeTore.

Re Claim 27: DeTore discloses an automated decision-making arrangement comprising:

- An input circuit for receiving at least one transaction (Fig 1, Ref 16 and Fig 3 Ref 50)
- A storage medium having at least one rule relating to identification of compliance violations related to a transaction (Column 1, line 63- Column 2, line 5), the at least one rule triggering an action for managing risk (Column 3, line 26-35)

While DeTore does not explicitly state that the compliance violations are regulatory requirements, the rules engine of DeTore could easily account for such a feature based on the fact that the database consulted is installation specific to a particular user (Column 3, lines 36-35). Rules in a rules engine must inherently be defined or programmed at some initial stage. In this instance, in the creation of the rules engine, the system would simply consult the inputted scenario against previously programmed regulatory requirements and make a determination as to the compliance with the stored rules. Furthermore, the system of DeTore contains a decision making file that can select between alternative paths. Again, in this instance the programmable rule would compare the input data to the stored data and then based on the compliance determination send the result to the decision making file. The decision making file is then responsible for the appropriate action (i.e. output a decision to “manage risk” to the user). It would have been obvious to anyone skilled in the ordinary art at the time of invention to include the rule of complying with regulatory requirements to the disclosure

of DeTore because it is essentially a programmable rule which triggers an output, specific to a certain scenario. The system of DeTore is meant to be a decision making apparatus, programmable by the user to meet their specific needs and therefore could easily be adapted to handle this situation.

Re Claim 28: DeTore discloses an automated decision making arrangement comprising

- a client process for generating and sending a transaction containing an order for execution (Column 1, lines 52-66 'input means'; Figure 3, Ref 50)
- at least one rules engine process for receiving said transaction from said client process and applying at least one rule to said transaction (See Figure 3, Refs 52, 54; Column 3, lines 26-35)
- At least one execution process for receiving said order from said rules engine and for executing the order, when the application of rules by said rules engine results in an approved outcome (Column 5, lines 62-Column 6, lines 9; Figure 3 Refs 54 and 56)

DeTore does not explicitly disclose the step of providing a warning to a user about the order when specified by said rule, however the decision making file (28) of the system is in place to interpret the output from the rules engine and make an appropriate decision. As noted in DeTore "decision making file contains criteria, alternatives, weighting functions, utilities and other information useful in making decisions and selecting alternative decision paths (Column 4, lines 33-35)." In this case, the alternative would be programmed to "warn" the user if a certain rule is either met or

violated. It would have been obvious to anyone skilled in the ordinary art at the time of invention to include this warning feature to the disclosure of DeTore because it is essentially a programmable output, specific to a certain scenario. The system of DeTore is meant to be a decision-making apparatus; programmable by the user to meet their specific needs and therefore could easily be adapted to handle this situation.

Response to Arguments

Applicant's arguments with respect to claims 1-13, 15-17, 19-22 and 24-28 have been considered but are moot in view of the new ground(s) of rejection.

Applicant has correctly pointed out that a complete rejection of claim 28 was omitted in the previous office action. It appears that a clerical error caused claim 28, which was submitted after the initial filing, to be separated into two parts. The examiner did not initially see the second half of claim 28, however the claim in its entirety is addressed in this action. This action is also issued as a non-final as a result.

Concerning the applicants arguments regarding DeTore's failure to anticipate that the outcomes or application scope of the rules are user configurable, the examiner disagrees and has pointed the applicant to additional passages from DeTore in support. Claim 1, as currently constructed calls for a rule to have a plurality of outcomes capable of being selected by a user. It is still the examiners contention that DeTore anticipates this claim based on the fact that a rules engine must inherently be initially programmed with a first set of rules and the respective outcomes. These rules by definition must therefore be user configurable and installation specific. The same argument exists for the application scope, as the user would initially choose the path.

With respect the arguments of claim 15, the examiner disagrees that passing the decision making process from a machine to a human being cannot be said to increase scope. In fact DeTore indicates that in some aspects the automated process cannot make a decision and therefore the matter is referred to a human for resolution (Column 7, lines 2-5). In this explicit example passing the decision making process from a machine to a human being increases the scope since the machine may not have the appropriate programmed knowledge necessary to make the decision. Furthermore DeTore shows how the process increases in scope in an automated fashion as well by making an initial determination to obtain more data and then rendering a decision in light of the new information (See Ref 61)

The arguments with respect to claim 27 are based on amendments to the claims and are therefore addressed in the above rejections.

No arguments were presented concerning the prior art applied to any of the dependent claims.

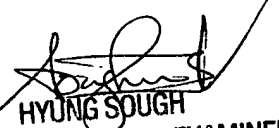
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy M. Harbeck whose telephone number is 571-272-8123. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Souh can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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HYUNG SOUGH
SUPERVISOR PATENT EXAMINER
TECHNOLOGY CENTER 3600